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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/628,481 | 07/29/2003 | Tomi Kimpimaki | 1497-120 | 4680 |

23117 7590 11/03/2004

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EXAMINER

RAJGURU, UMAKANT K

ART UNIT PAPER NUMBER

1711

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,481

Applicant(s)

KIMPIMAKI ET AL.

71

Examiner

Umakant K. Rajguru

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-71 is/are pending in the application.
- 4a) Of the above claim(s) 47-71 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 17-46 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

1. Claims 17-46 are presented for examination.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 23, 41 and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites "salts" on line 3 but fails to point out which salts are encompassed.

Claim 43 encompasses a Markush terminology. Hence the proper conjunction is "and" (not "or" as recited on line 3).

Claim 41 is indefinite in reciting the polymer on line 1 since claim 39 does not have any polymer in it.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 17-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aho et al (WO 98/54,410).

Aho discloses a coated board and a process for its manufacture. The board comprises at least one polymer-based coat, the coat being formed from a polymer dispersion in which talc particles at 30-80% by wt are added (page 20, lines 1-7). Modified starches, polylactides and other biopolymers are some of the suitable polymers (page 5, lines 7-11). Some pigments are also added to the coat (page 5, lines 20-25). Other useful polymers include styrene—butadiene, styrene acrylate, acrylate or vinyl acetate polymers and copolymers (page 4, paragraph 4). Also useful is sodium carboxymethyl cellulose (page 11, example 1).

Aho does not specifically mention a size fraction and a pigment fraction.

It would have been obvious to follow teachings of the Aho and arrive at instant invention since it is a well-known practice in the art to blend certain ingredients of a composition (out of all the ingredients) into a few batches or fractions and then combine these batches to get the final product in order to facilitate smooth handling, to reduce cost of production and to obtain the final product of desired properties.

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6. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aho et al (WO 98/54,410) as applied to claim 17 above, and further in view of Niinikoski et al (US 6,753,377).

Aho does not mention graft copolymer of instant claim 45.

Niinikoski describes polymer dispersion, which contains a copolymer of starch and monomers.

It would have been obvious to use graft copolymer of Niinikoski in the manufacture of coating for board of Aho to impart enhanced reactivity as well as better retention and adhesion to board or paper.

7. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aho et al (WO 98/54,410) as applied to claim 17 above, and further in view of Hormi et al (EP 918,104).

Aho does not mention hydrophobification agent.

Hormi describes a cationic chemical that is added in a papermaking process.

Hence it would have been obvious to include the cationic chemical of Hormi in the coating of Aho to impart water repelling to the board.

8. Any inquiry concerning this communication from the examiner should be directed to U.K. Rajguru whose telephone number is (571) 272-1077. The examiner can generally be reached on Monday-Friday 9:30 am-6:00 pm.

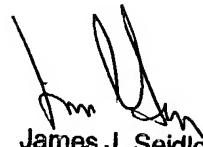
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



U.K. Rajguru/dh
September 2, 2004



James J. Seidlick
Supervisory Patent Examiner
Technology Center 1700